NATIONAL PARKS *Magazine*

Mule deer bucks and Thunderbird Mountain:
United States section, Waterton-Glacier International Peace Park

October 1964

The Editorial Page

Park Wilderness in Danger?

NEW LANDMARKS IN CONSERVATION history have been established this year with startling rapidity: Fire Island National Seashore has been created; the Ozark National Scenic Riverways also; and Canyonlands National Park. The Land and Water Conservation Fund has been set up; and the first Wilderness Bill, confirming protection for the wild and wilderness areas in the national forests and setting procedures for new Wilderness Bills for the primitive areas in the forests and for the national park system, has been passed and signed. All this is a very creditable achievement by a conservation-minded Administration and Congress.

But major policy questions arise in the administration of the seashores, riverways, and parks, new and old.

The Secretary of the Interior has determined that the areas within the national park system shall be divided into three categories: natural, historical, and recreational.[1]

The Recreation Advisory Council has decreed that recreational areas shall include the shorelines and riverways on the one hand, and the big recreation areas around reservoirs on the other.[2]

The Council has also stated that "national recreation areas should be located and designed to achieve a comparatively high recreation carrying capacity, in relation to type of recreation primarily to be served."

We commented last month that this language, and other comparable statements, endangered the seashores and riverways by including them in the same category with the reservoirs and relating their management to high carrying capacity; perhaps to mass recreation.

We have now been given to understand, however, that we should have placed our emphasis on the phrase, "in relation to type of recreation primarily to be served." Recreation, it seems, can comprise the enjoyment of wilderness quite as much as the enjoyment of crowds. Recreation areas, therefore, can be managed for canoes, as in the Allagash; or for motorboats, as at Lake Mead. This breakdown may not leave any material distinction between the Secretary's categories of natural and recreational areas.

To gain more light on this problem, one must turn to the classifications established by the Outdoor Recreation Resources Review Commission,[3] which are as follows:

I. High density recreation areas
II. General outdoor recreation areas
III. Natural environment areas (including reservoirs)
IV. Unique natural areas
V. Primitive areas
VI. Historical and cultural sites.

The ORRRC classifications have been adopted by the Bureau of Outdoor Recreation, except that BOR calls its unique natural areas "outstanding natural areas."[4]

For the national park system the Secretary's three major categories seem to be controlling, at least as to the general managerial purpose of any given unit of the system. Any unit, however, may be zoned internally in accordance with the six classifications of ORRRC and BOR. Thus we may have an area in the recreational category, such as the proposed Assateague Island National Seashore, and with it all the classifications of land use, from high-density areas to primitive areas. Or we may have an area in the natural category, say, Yellowstone Park, and in it likewise the entire range of zones comprised by the ORRRC-BOR classifications.

The National Park Service now has in preparation a separate set of managerial principles for each of the Secretary's major categories. In view of the many sub-areas which will apparently be created by the category-classification system, we suspect that the principles may be difficult to apply.

In fact, it would seem that each unit of the system would have to be planned and managed in accordance with its peculiar requirements: that is, in accordance with its specific organic statute and the particular ecological and sociological problems it presents. Thus we return to the master plans and the subordinate schedules and programs which have long been in use within the system. The elaborate categories and classifications may prove to have been an exercise in futility.

With respect to the established and proposed national seashores and comparable units, conservationists must concern themselves with the primary purposes for which these regions were thought to be established: that is, with the protection of natural conditions, and with recreation only in compatible forms. The master and subordinate plans must be kept under continuous criticism and surveillance; else the seashores may become Jones Beaches.

Even more serious will be the problem of the great national parks and monuments. Studies are in process within the Service of Yellowstone and Great Smoky Mountains National Parks. Task forces have been appointed and are working on plans. No provisions have been made for public examination of these plans before approval by the Director.

Very extensive regions in Yellowstone have been zoned in these tentative plans as classifications I, II, and III; that is, essentially as recreational areas, as distinguished from natural areas. These recreational areas extend several miles outward on either side of the major roads. The regions beyond these recreation areas are to be zoned as primitive areas; it is anticipated that when recommendations are made for wilderness classification under a new Wilderness Bill for the national parks, it will be only these primitive areas which will be given the additional statutory wilderness protection.

Many conservationists have supposed that the entirety of Yellowstone Park, with exception of the settlements, might well be looked upon as wilderness; if the absence of roads and structures is the test, Yellowstone Park is largely wilderness; the proposed recreational classifications cut down on such wilderness in Yellowstone Park severely.

Is this but the beginning of a systematic reinterpretation of the National Park Service Act and special statutes like the Yellowstone Park Act, reducing the scope of the protection they have always been thought to provide for natural conditions in the parks?

Is the Wilderness Act to be used to reduce the areas in the big national parks receiving full wilderness protection?

How serious this may be can be judged by the illustrations used in the ORRRC Report showing classification III, natural environment areas, as including motorboats disporting themselves on a reservoir created by a gigantic dam.

The portions of Yellowstone Lake which have been given over to motorboats under present regulations will be included, it would appear, in the recreational portions of Yellowstone Park; that is, the dedication of most of Yellowstone Lake to motorboating will be confirmed.

Equally serious problems appear to arise in respect to current plans for Great Smoky Mountains National Park.

It would be far better for all concerned if planning of this kind could be carried on with the participation, through conferences or hearings, of an informed and responsible public. —*A.W.S.*

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[1] Memorandum to the Director of the National Park Service from the Secretary of the Interior on Management of the National Park System, July 10, 1964, released August 3, 1964.

[2] Recreation Advisory Council, Policy Circular No. 1, March 26, 1963.

[3] *Outdoor Recreation for America*, 1962; pp. 7, 98.

[4] Attachment to forms, BOR 8-73, 8-75.

NATIONAL PARKS *Magazine*

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Front cover illustration from a transparency by Thomas S. Choate

From the alpine meadows of the Hole-in-the-Wall Basin, high in the Livingstone Range of northwestern Glacier National Park, a back-country trailsman and his camera, with a supporting cast of mule deer bucks, view the treeless mass of Thunderbird Mountain. The trails of the northwest sector of the park lead the visitor into high and rugged country and offer, in the words of one naturalist, "a feeling of remoteness, spendid solitude, the close kinship with unspoiled, unexploited nature"; a region where luxury of accommodation depends entirely on strength of leg and back.

The Association and the Magazine

The National Parks Association is a completely independent, private, non-profit, public-service organization, educational and scientific in character, with over 28,000 members throughout the United States and abroad. It was established in 1919 by Stephen T. Mather, the first Director of the National Park Service. It publishes the monthly *National Parks Magazine*, received by all members.

The responsibilities of the Association relate primarily to the protection of the great national parks and monuments of America, in which it endeavors to cooperate with the Service, while functioning also as a constructive critic; and secondarily to the protection and restoration of the natural environment generally.

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NATIONAL PARKS ASSOCIATION, 1300 NEW HAMPSHIRE AVENUE, N. W., WASHINGTON, D. C. 20036

BORDER WILDERNESS

By Thomas S. Choate

Photograph by Hileman

Olson Mountain, from Olson Creek, in the "border wilderness" of Glacier National Park. Citadel Peak is in center background; Porcupine Ridge at the left.

MANY AMERICANS, INCLUDING PERHAPS a few outdoors enthusiasts, are not aware of the fact that there is an international park in our national park system. In 1932, the United States and Canada combined two adjacent parks—Waterton, in Alberta Province and Glacier, in Montana State—to form the Waterton-Glacier International Peace Park.

There are, of course, good roads that take the visitor into several parts of both parks. From any of these roads one may enjoy superb views of glacially-sculptured northern Rocky Mountain peaks. The mountains here form a somewhat complex and fractured sedimentary chain more than seventy-five miles long, and include two sub-ranges of deeply-carved rock.

One would think that only the unimaginative (or perhaps the uninitiated) would be satisfied with a mere look at the beautiful scenery from a car, and in a day; but this is the routine of the majority of park visitors. Some obviously do not care; others fail to allow themselves sufficient time in the park. But great preservations such as Glacier Park can offer profound and meaningful experiences to the seeker who makes the proper approach. In the tense world of today such experiences are precious, and we need them for relaxation and rejuvenation. But we need also to develop the full potentials of mind and body —especially the full range of the senses—in order to drink of the values of such areas. Perhaps personal experience might best illustrate what I have in mind.

I have slept out several hundred nights and walked several hundred miles of trail in this international park, and have not been in more than half of it. (Some visitors claim to have seen the park after one day's drive through it.) From my various trips I have chosen a few favorites, and most of these were made into an area I call the "border wilderness" because it flanks the international boundary. I should like to relive for the reader one day of one of these trips.

* * *

Bownman Lake, in the northwest corner of Glacier National Park, lay shimmering in the morning sun. All around the head of the lake forested hills rose steeply into black, jagged peaks against the light. This was the end of the road; the beginning of the border wilderness.

It is time to take a deep breath. There is no soot here, no exhaust fumes; just a cool dampness. We travel the length of the lake by boat. It is a big lake, ten miles long; and the boat ride will help us to reach "high camp" by night.

Watch the sunlit forest pass by along the shore: are the tall, dark green trees Western hemlocks? Their irregular tops show that they are, indeed. The red cedars are not as tall, and their pale-green needles and shreddy bark make them conspicuous. What are the taller, pointed conifers? In this low, moist forest they are most likely to be a species of fir—their exact name must wait for a walk amongst them.

From the boat the panorama of peaks above the lake unfolds and slowly surrounds us in the approach to the inlet stream. The giant Rainbow Peak appears above; we see the parallel layers of rock in the shadows of its right side. The peak looks very steep and forbidding. But on the left, where the rocks are golden in the sun, there are chutes of broken rock leading to the summit. They could be climbed easily. It must be beautiful up there now; perhaps on some other trip . . .

The bow of the boat scrapes loudly on the gravel, and we are jarred into action. There is a shuffle to get packs ready. We climb out and look around. The tiny clearing is surrounded by cottonwoods, and there are poplars along the shore, vibrant leaves flickering in the light and breeze. Two dark outlines are visible beyond; the tall conifers and the steep, shadowy ridges, each imparting depth and contrast.

The boat is leaving. Stretch and

Photograph by the author

Mt. Cleveland, highest peak in Glacier National Park, looms across the upper Waterton Valley in the photograph above, which was taken from a point just below Brown's Pass.

yawn. Here we are, awakening to the wilderness morning. For the first time the gentle slap of the waves is the loudest sound to be heard. Some bird twitters high in a tree, but the specific call is muffled. A gentle rustle of leaves is in the background, too. The pack seems a bit heavy at first, but it serves to stretch cramped muscles; for now, the weight is insignificant.

The ground is soft underfoot, for there is much organic matter and water in this forest soil. The straight trunk of a conifer reaches a hundred feet into the air before there are many branches. Long, sparse needles at the ends of the branches mean that it must be a Western white pine. Its long cones smell of resin, and stick to the fingers.

Far away a raven croaks. Small birds are all around, but only their voices penetrate the vegetation. We near a stream, and its rushing water tells of the steep and snowy places of its birth, somewhere up this valley. The forest changes as we progress upstream—there is less hemlock and cedar, more Douglas fir and white pine. Here and there are those strangest of the conifers, the larches. Their wide, reddish trunks somewhat resemble those of the ponderosa pine, but only narrow branches leave the trunks and the twigs are knobby. From those knobs spring pale-green tufts of needles, dropped each year. Summer and winter, this deciduous conifer looks different from all the rest.

The head of the valley is closer. The rumble of a high waterfalls becomes louder and louder. Soon the clearing reveals a great cirque above, with two waterfalls dropping hundreds of feet to the avalanche-cleared valley floor. Above the falls there seems to be a hanging valley—Brown's Pass—and not far from there we hope to spend the night.

At this point the trail rather abruptly attacks the problem of reaching the pass. The pack is still there, and now it seems to be getting heavier. We climb up through the trees to brushy, open slopes. The mid-morning sun is hot on the south-facing switchbacks. We climb on, watching the now-rocky staircase unwind underfoot. Here is a nice stream and a meadowy sitting-spot. Good, cold water, pure and refreshing; the white wine of the mountains, as intoxicating as the scenery that gives it birth. It feels good to sit down and breathe deeply; the air is warm and fragrant now, and no wonder: rock spirea, pentstemon, mertensia, and other flowering plants dot the grasses.

Pause That Relaxes

There are nodding heads among us, and an hour and a half passes. Lunch and sun are good, and it would be wise now to get on to the pass. The pack feels strange again, though not oppressive. With rest, food and the scenery, who could be tired? We are in the open now, and can see the wall of Mount Carter back down the valley. The ridge on the right leads to Rainbow Peak; but our attention is drawn to the left side of Rainbow. Here is the spectacular Weasel Collar Glacier. Long and thin, it plummets from its small cirque straight down the side of the mountain. So steep is the fall that the ice-surface is cut into massive blocks and crevasses. Far below, at the bottom of the mountain's four-thousand-foot face, are the moraines that mark the end of the glacier's last advance. Even since Glacier National Park was established in 1910 the ice-front has been retreating, and now it is hundreds of feet up the mountainside. Its tenuous lifeline of ice from the cirque is vulnerable to sun and evaporating wind; and over the years there has been less snow accumulating above. We could see that the cirque was still largely shadowed and filled with snow, an assurance of life yet awhile for the greenish-gray ice tumbling down the slopes.

Soon the steepness of the trail softens a bit, and long slopes rise away toward Brown's Pass. Here scattered clumps of trees are surrounded by meadows and big clusters of beargrass, the official park flower. What is this flower? Not a grass, but seemingly a hundred lilies all bunched together on a single tall stalk to create a puffy white head. The air around them is filled with pollen, and their heady perfume is not quite sweet; but it is strong.

Now a Columbian ground squirrel runs at full speed for its hole, with a quick last look before plunging underground. How different this little mammal here, where it has not been domesticated by the well-meaning tourist with the handout. Even a squirrel is a new adventure when it is seen in its wild, natural habitat. No wonder it was so easily frightened: we examine a big pile of fresh earth around another squirrel hole. Apparently a hungry grizzly bear had hoped for some meat with its vegetables! Down the trail another squirrel is standing up to watch us, now that we have passed him. The binoculars show a spotted back and a red nose. There is red on the tail, too, which flicks almost every time the animal changes its position, and again whenever the warning call is chirped.

There is a sign ahead, and a wide opening between two towering peaks —Brown's Pass, a three-way park trail junction. Ahead the trail goes down to some lakes and through the valleys to Waterton Lake, where one can take a boat or hike through Waterton Park to the Canadian roadheads. The other trail continues climbing to the left; it is one of the most northerly of Glacier Park trails, leading to Hole-in-the-Wall Basin with its timberline meadows. There, we plan to make our camp.

The cirque of the Basin heads in Mount Custer, the north side of which bears another fine cirque that drops off to Cameron Lake in Canada's Waterton Park. The trail continues from Hole-in-the-Wall across steep cliffs and then climbs along Boulder Glacier to Boulder Pass. At almost 8000 feet, it is one of Glacier Park's highest and snowiest passes. It is never easily traversed before mid-July of most years, and the conservative hiker or horseback rider makes no plans for this beautiful trip before August. We are not conservative, and we will try it; our mountain-climbing boots will give us traction and keep out the snow. The views of 10,000-foot peaks in both the United States and Canada are splendid, and the 4000-foot descent on the other side to the Kintla Lakes make this one of the superb wilderness trips.

A Pleasant Side-Trip

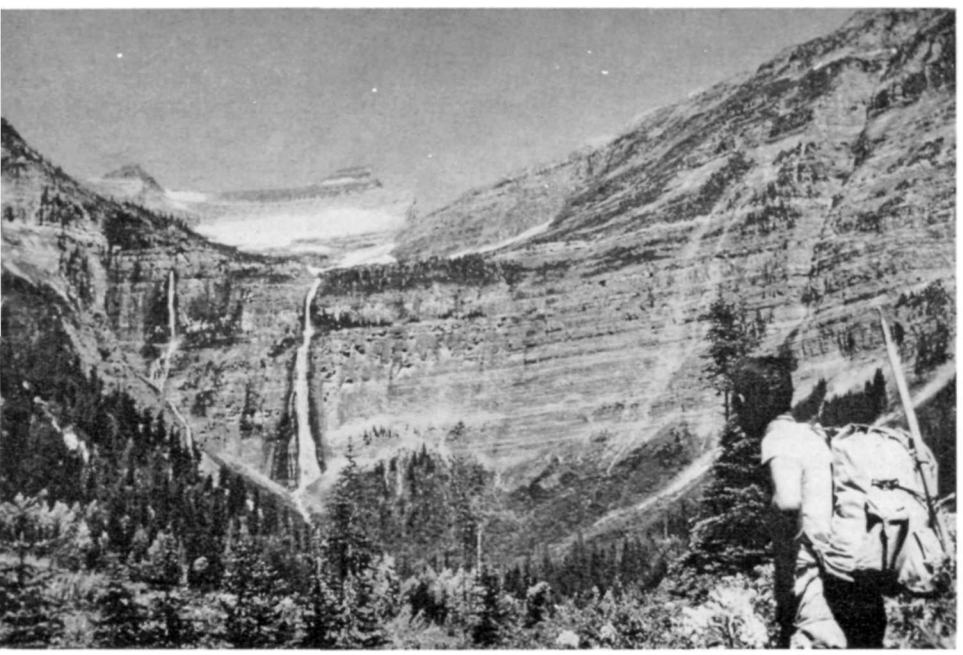
But for now, off with the packs; we will take a side-trip on the trail to the Waterton Valley. Soon the peaks flanking Brown's Pass are in full view. *Mount Chapman, on the left, rises* steeply into the sky. To the south the great cirque of Thunderbird Mountain opens toward us; we can just make out low tongues of ice, above which lies the main body of Thunderbird Glacier.

Down the trail the view opens up, and far across the valley to the east towers Mount Cleveland, highest peak in Glacier Park. Its total height somehow seems unimportant; it is the sheer north face of the mountain, rising more than 6000 feet from Waterton Lake, that commands the attention. Finally, other sights gain importance. On the right are the spectacular pinnacles of Porcupine Ridge, quills that pierce the sky. Below are the forests and lakes. Days of hiking and photography lie in storage down there; days that would yield a treasure of wilderness fulfillment for those willing to spare the time for harvest.

It is mid-afternoon, and time to backtrack and regain the packs. The trip continues up the Kintla Lakes trail, and leads through beargrass and yellow columbine, red monkeyflower and the Lewis pentstemon. Around a high corner the mountain suddenly drops away, and we are on a cliff. Here is Hole-in-the-Wall. The great waterfalls which gives the basin its name seems to shoot out of the face of the lower *cliffs, falling free in space for hun*dreds of feet, separating into white curtains and plumes that glow brilliantly in the sun. The rumble of the falls and cascades re-echoes from each cliff, filling the basin with sound.

In Hole-in-the-Wall Basin, on one of the most northerly trails in Glacier National Park, two waterfalls leap from the face of the lower cliffs into the alpine meadows.

Photograph by the author



The trail hangs to the mountain wall on a few feet of ledge as it leads into the basin. Here are meadows of beautiful alpine flowers; glacier lilies and buttercups enrich the areas of red heather and magenta mountain laurel.

Someone else is here, too. We turn slowly, and there is a mule deer only thirty feet from us, staring curiously—a small buck, perhaps two years old, with forked antlers still covered with velvet. The camera takes one, then two pictures. Off bounds the buck, to stop and stare again from a little hill perhaps two hundred feet away. Now a big buck joins him; and then there is still a third, vague behind a stunted alpine fir. They are wild but not fearful, and watch our every move as we set up camp. One is always at least partly in sight within a couple hundred feet of the camp. The mammals remove apprehensions about possible grizzly-bear trouble, and camp seems more comfortable for their presence. It is time to start supper, and there is the smell of strong pine smoke and stew.

End of the Day

The sky is changing color, and the rocks at the jagged top of Thunderbird Mountain are turning red-brown. Snow-patches glow in a soft pink. The sky is turquoise toward the sun, and deep blue behind the reddish towers of the peaks. The mountains slowly become dark shadows against the sky. A single cloud glows orange, then red, then fades into the purple sky.

It turns cold, and there are only the glowing coals of the campfire at our feet. A chill breeze is blowing off the snow; we grope in the dark for sleeping bags, and are quickly surrounded by warm down. *Scrape, scrape, rustle;* get the flashlight. The bright beam locates a porcupine by the fireplace. The great mantle of quills rises slowly in the face of possible danger. A shout, and the mammal waddles off. It was in the poorly-cleaned supper-pot. Get up and stumble across the cold, sharp rocks; put things under rocks, or in the pack next to the bed; and so at last back to the sleeping-bag. Roll over in the heath-patch bed to find a softer spot. Dream of tomorrow and mountain goats, marmots, pikas and ptarmigan, among the rocks and snow of Boulder Pass . . . this is a day in the border wilderness of Glacier Park. ■

The Sierra Wolverine

By Weldon F. Heald

In describing animals, scientists eschew what they term the "pathetic fallacy." By that they mean our tendency to endow the lower fauna with human traits and feelings. Thus, specialists limit their descriptions of animal behavior to purely mechanical reactions. Such words as malice, hate, love, jealousy, joy, sorrow, sympathy, or even good nature are taboo. All is put on a dead level of verifiable fact.

But a scientific inventory of an animal's physical make-up and habits often fails to portray its character and personality. All living beings are unique, both generically and individually, and their endowments add up to much more than length, breadth, dental formulas, number of bones, and means of subsistence. Only by borrowing from the lexicon of human emotions can we depict the true nature of an animal.

For instance, consider the wolverine. No mammal has been the subject of more myths, legends, exaggerations, and tall stories. The Indians considered the wolverine to be possessed of an evil spirit, and white pioneers knew it as "a ravenous monster of insatiate voracity, matchless strength and supernatural cunning, a terror to all other animals, the bloodthirsty tyrant of the forest."

Of course, such highly colored, humanized conceptions are off limits to scientists. But anyone familiar with the wolverine in its natural wilderness habitat finds himself adopting the pathetic fallacy to describe this remarkable mammal. Even Judge Walter Fry, one-time ranger and later superintendent of California's Sequoia National Park, said that the wolverine was King Beast of the Sierra, and was well aware of the fact.

No one knew the wildlife of the High Sierra better than Judge Fry, and his observations covered a period of many years. But the incident he cherished most and remembered best was a fracas between a wolverine and two bears. This he related in the February, 1930, *Sierra Club Bulletin*. One afternoon he and several companions made camp in Buck Creek Canyon, seven miles east of Giant Forest. "Scarcely had we finished when we heard the growlings and mutterings of a bear," he wrote. "In order to locate the disturbance, we walked out on a nearby precipice, and on reaching the end of the cliff saw below us a small grassy opening some 150 feet away. There in plain sight were two large bears, one a black and the other a brown, standing on the decomposed carcass of a cow. The animals were disputing the right of possession, but after much growling and fussing, they both squatted side by side in a friendly, if malodorous repast.

Enter the Wolverine

"Undetected, we watched the bears for some fifteen minutes. Then we saw a large wolverine emerge from some brush about one hundred yards to the rear and above the two bears. The wolverine seemed to have nothing in particular on its mind, but was just ambling along at a slow walk with an occasional glance to either side. Whether the wolverine was returning from a long, unsuccessful hunting trip in an effort to obtain food, or just starting out for his evening hunt, was not certain, but I am of the opinion that the former was the case, for the animal showed signs of both fatigue and hunger. He first lay down for a few moments; then got up, turned over a good-sized log, under which he found a few snails, which he ate; next he walked a few paces to a dead fir tree, from the base of which he jerked a large fungus and swallowed it at one gulp; then he directed his attention to catching and eating frogs from some puddles of water.

"The wolverine continued on his frog hunt for a few minutes only, for a sudden shifting of the wind brought to his nostrils a scent of carrion wafted on the breeze up the cañon. At this he sprang on top of a large boulder, pointed his nose, looked in the direction of the scent, and espied the two bears. He watched them for a few moments, eyeing the space between him and them, stood for a short while studying in a thoughtful mood, then slid quietly to the ground and sat down. He hung his head in serious meditation, as if trying to reason out the best possible method to obtain possession of the carcass. Soon his bristling hairs told of his decision. It was a fight to the death if need be, but have the carcass he must.

"Shifting his position a few paces to the right, he secured possession of a large boulder within about thirty feet of the bears and shielding him from their sight. Advancing cautiously but quickly to the boulder, behind its shelter he brought his passions of anger to full height and preparation ready for the affray. He stood up rigid, then peeped around one side of the boulder. His black, beadlike eyes glittered, while the hair on his back and neck was erect and rough like that of a dog going into a fight, and his short, bushy tail was hoisted to an almost perpendicular angle. Then, after having bristled himself up to what appeared double his natural size, in this queer and picturesque attitude the wolverine shot down the mountainside, landed directly on top of the carcass between the two bears, and, growling ferociously, snapped his powerful jaws and teeth in their very faces.

"Never in all my mountain experience have I seen wild animals more suddenly and thoroughly frightened than were those two bears when they first looked up and saw the wolverine so close and in such a hostile attitude. Every combative impulse gave way to

hysterical fright. The brown bear gave three enormous bounds and landed high on the side of a large fir, to the top of which he climbed. His black companion turned a complete somersault backward, and landed on his feet, head foremost down-hill; and he departed at such speed that only a cloud of dust drifting toward the western horizon marked his course.

"Then the wolverine began devouring the carcass in an effort to satisfy his gluttonous appetite; but when one of the boys of our party approached him, he gave a coarse growl, grabbed a large bone in his mouth, and walked slowly into the depths of a cherry thicket. I have never been able to figure out why the bears were so outrageously frightened at the onslaught of the wolverine, unless they had been taught by long experience that the wolverine is an animal that once engaged in combat fights to the death."

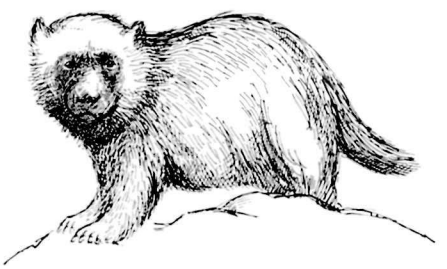
Spirit of the Wilderness

Judge Fry has here captured in words the feral, untamed spirit of the wolverine. For, like the grizzly, buffalo, mountain goat and antelope, this animal is a distinctive legacy of our wild heritage—a left-over from primitive America before the coming of the white man. Once the wolverine roamed the primeval forests from New England to the Pacific Coast. But the inroads of settlement, persistent hunting and trapping for its beautiful fur, and its aggravating, anti-social habits have resulted in the almost total extinction of the wolverine below the Canadian border.

In the southern part of its former vast range, the beleaguered animal is making its last stand in California's Sierra Nevada. Although classified as rare even there, wolverines still inhabit a narrow belt about 250 miles long from the vicinity of Lake Tahoe to the Kern Plateau, south of Mount Whitney. Each year sight and track records are reported between 6,500 and 13,000 feet elevation, and it is believed that in the past decade the population has remained fairly stable.

Called *Gulo luscus* by biologists and zoologists, the wolverine is a member of the Mustelid family, which includes the weasel, mink, marten, otter, skunk, and badger. Except for the sea otter, it is the largest of the tribe, adult males measuring some three feet long and weighing up to thirty-five pounds. In general appearance, wolverines resemble small bears with bushy tails seven to nine inches long. They have stocky bodies, comparatively short legs, and are covered with long, coarse, dark brown fur, striped with a pair of yellowish bands starting at the shoulders and ending at the base of the tail. The paler brown snout is more pointed than a bear's and the jaws are set with prominent teeth. The very large feet are equipped with sharp, curved claws. Both teeth and claws are formidable armaments, as well as being uncommonly efficient implements in the animal's almost constant search for food.

Character and habits, rather than physical appearance, set this rare and elusive denizen of the wilderness apart from all others. Reputed to be the most powerful animal for its size in existence, the wolverine has no equal in dogged courage. Although not aggressive as a rule, it will fight savagely when attacked or for the protection of its young. A wolverine may die in combat, but it never retreats. However,



north-woods tradition that wolverines will attack humans seems to be pure fiction. There are no authentic cases on record, and reports state that almost invariably they yield the right-of-way to man in a dignified manner, unhurried and unafraid.

For three centuries woodsmen have relied upon the pathetic fallacy to express their feelings about the wolverine. These opinions have usually been emphatically sprinkled with unscientific epithets. The animal's voracious appetite, apparent meanness, and thieving propensities have resulted in the enmity of mankind. Endowed with high intelligence and considerable reasoning power, wolverines show greater craftiness and ingenuity than coyotes in finding and robbing the stores of man and beast. They systematically follow trap lines, devouring both animals and bait without being caught themselves.

Equally notable is the mammal's insatiable hunger. During its waking hours it is constantly on the prowl for food, and will consume anything edible in its path, living or dead. Except for members of the mole family, wolverines probably have a larger capacity in proportion to weight than any other North American animal. Almost exclusively carnivorous, their diet consists of marmots, hares, squirrels, mice, foxes, ground birds and their eggs, reptiles, amphibians, and occasional sick or crippled larger prey that they are able to drag down. One tidbit the voracious mammals cannot seem to resist is porcupine meat, an addiction that has contributed to involuntary race suicide; for dead wolverines are often found with stomach and intestines punctured by needle-sharp porcupine quills.

Habits of the Mammal

Wolverines are tireless wanderers, and do most of their foraging at night; but when forced by hunger they will hunt by day. Although generally solitary, a pair will sometimes travel together, but they seldom migrate, and usually remain in the vicinity of their birthplace. Too large to excavate sufficiently roomy burrows, as most of the Mustelids do, wolverines set up housekeeping in natural dens or protected places at the foot of trees. They do not hibernate, and the mating season is early spring when Sierra snows are deepest. By June or July four or five babies are born, which reach maturity in about a year. Although not habitual tree-climbers, wolverines can ascend rough-barked trunks with considerable agility when they have to, and they are excellent swimmers.

It is not likely that the reader would ever come face-to-face with a wolverine in the High Sierra, for the mammal is singularly furtive and alert. Except for angry growls when attacked, these animals make little noise in the stillness of the deep woods. But wolverines are still there, and it is good to know that they are. For these wild, free, wilderness animals are a part of original America, and as such they should be zealously protected in their last-ditch stand in the fastness of the Sierra Nevada. ■

Visit to a National Grasslands

By David Beatie

I WAS SLOWLY DRIVING ALONG A country road, looking for the Cross Timbers Grasslands in North Texas. Over-grazed and eroded land on each side of the road gave a bleak appearance to the landscape, and presented a more-than-barren winter scene. There were no road markers designating any route to the Federal land.

Just when I was beginning to question my directions I entered a section of land heavily covered with waist-high native grasses. Bluestem stood tall and untrampled in sharp contrast to the barren fields behind me. I knew that this was Federal land even before I came to the Forest Service sign. I was in a unit of the National Grasslands.

Purchased originally by the government to stop erosion and revegetate the soil, the National Grasslands now provide grazing, recreation, and wildlife habitat. Much of the land was reclaimed from dust bowl areas. Today these tracts are lush, living examples of soil, water, and wildlife conservation. Vegetation now thrives where three decades ago even a field mouse would have had meager pickings. It did not take long to plow the soil of the arid High Plains, but years have been required to bring it back to near-original condition, and Americans were taught a painful lesson in good land use.

National Grasslands now comprise more than three million acres in eleven western and southwestern States. Purchase of the land started as an emergency measure in the 1930's, and continued under the Bankhead-Jones Farm Tenant Act. Originally managed by the Soil Conservation Service, the Grasslands have been under the direction of the Department of Agriculture's Forest Service since 1954.

A Home for Wildlife

In Texas there are approximately 300,000 acres of Grasslands, divided into five separate areas. Along with sections in Oklahoma and New Mexico, these areas are known as the Panhandle National Grasslands. Much of the wildlife found in Texas thrives in these areas. Picnic grounds and lakes provide outdoor recreation for thousands of visitors. And many ranchers hold paid permits to graze more than 14,000 head of cattle on the once-barren lands. All told, the National Grasslands provide grazing for more than 165,000 head of cattle and 47,000 sheep annually.

Experts in the Forest Service estimate that 27,000 antelope and 19,000 deer inhabit the National Grasslands, and the Service is responsible "for managing, developing, and protecting the wildlife habitat in harmony with other resource uses."

The popularity of the Grasslands is indicated by the more than 300,000 annual visits of people seeking sport and recreation. Work was still going on at the Cross Timbers unit in North Texas when I visited the area. Picnic tables had been completed at Black Creek Lake, and workmen were building restrooms. Construction of boat landings was to follow. The lake, comprising 30 surface acres, was stocked with fish in the spring of 1962. Other lakes are in the planning stage. Even before construction of recreation facilities was begun in 1962, District Ranger Rex Owen estimated that there were more than 3200 visits to the Cross Timbers Grasslands. Upon completion of present plans, the number of recreation visits annually is expected to increase heavily. The Grasslands is located in an area of Texas which has

limited public recreational facilities to offer.

The 20,300-acre tract has seventy main units which are fenced for grazing. In 1962 more than 1100 head of cattle grazed here, feeding on ample grass throughout the year. Each rancher paid $1.44 per month, per head, to graze his stock on Federal land. In 1963 the rate was increased to $1.52. Grazing charges fluctuate yearly, depending on cattle prices; if the market goes up, grazing charges advance proportionately. The reverse is true in a declining market. But the most important fact never changes: the cattle graze in luxurious stands of grass at a moderate charge. In addition, one of the most important of all natural resources, water, is available in all grassland units at Cross Timbers.

Strips of undisturbed woods interlace each area. Most of the trees are oak: live oak, post oak, and blackjack. Other trees include hackberry, pecan, walnut, cottonwood, and willow. Redbud, wild plum, and haw are scattered through the wooded areas. Several thousand pine trees have been set out in places where soil conditions are favorable.

But more important than the secondary benefits accruing to recreationists and wildlife has been the revegetation of soil that in the 1930's was literally blowing away. Over-culti-

As soil from his late-planted wheat field is blown across the land, a Texas farmer plods through a dust storm to survey property damage. Erosion like this prompted the government to start the National Grasslands program in 1935.

U. S. Department of Agriculture photograph

Photograph by the author

This view of the Cross Timbers National Grasslands in North Texas shows the striking contrast between Federal controlled-grazing pastures, on the right, and non-Federal overgrazed land on the left. The fenced area in the foreground is managed to supply wild birds and animals with proper habitat and food.

vation, over-grazing, and drought had stripped the soil of its natural cover. Winds sucked up the unprotected sandy loam and blew it across the State. Occasional "gully-washers" cut deep scars in the earth and carried the silt down the creek beds. The land became barren and desert-like.

Many farms had already been abandoned by frustrated families when the government began buying the desolate land in the late 1930's. Cotton had been the principal crop, and there had been twenty operating gins in the area. Most of the farms totaled 120 to 160 acres. But poor land-use, coupled with drought, robbed the soil and exposed it to erosion. Furious dust storms lashed Texas and other dust-bowl areas. Starving cattle wandered aimlessly over the naked land. Farmers trudged through acres of deserted countryside. The meadows had turned to desert. That was when the government stepped in.

In 1938 soil conservation specialists began the long and difficult task of revegetation. Only those who have seen dust-bowl areas could appreciate the challenge. Steep-walled gullies had to be plugged; drop-structures had to be built; terraces had to be laid out; pond dams had to be erected. The harsh soil had to be drilled with seed. And it takes a long time to get a heavy-cover stand of grass from seed.

Seed Is Drilled Into Soil

Bluestem, side-oats grama, big bluestem, sandlove grass, and blue grama was sowed over a period of fifteen years. Wherever a good stand was not obtained, additional seed was drilled into the soil. Much of the open land at that time was covered with needle grass. Big and little bluestem, Indian grass, and switch grass were harvested on neighboring land and drilled into the depleted soil. Gradually, the land responded to soil conservation practices.

Although reseeding, where necessary, has been continued under Forest Service supervision since 1954, much of the land today has good, protective stands of native grasses. Controlled grazing, by rotation and deferment, eliminates the possibility of the same kind of soil damage that occurred in the 1930's. Yearlong grazing on any one unit is not permitted.

Wildlife, too, is coming back. Fox, coon, coyote, bobcat, armadillo, possum, rabbit, and squirrel range the grasslands area. Conditions are now favorable for an increase in deer, which now range brushy portions of the Cross Timbers. Because of work done by the Texas Game and Fish Commission, quail, particularly, have increased rapidly. With an increase in water storage facilities, doves and migratory waterfowl are returning to the once-depleted land.

Under the Forest Service multiple-use management plan, "small open or park-like areas where reseeding to forage grasses has been unsuccessful will

be planted to forbs, shrubs, or trees suitable for wildlife forage and cover where such plants will effectively control erosion." Special plantings, of a few acres in size, for wildlife food and cover are scattered over the Grasslands. Quail food and cover plantings have been made by the Texas Game and Fish Commission. Long-range plans also include planting of species suitable for waterfowl food around present and proposed lake areas.

Reclamation of the more than 20,000 acres in the Cross Timbers area has served four principal purposes: conservation of soil and water; grazing for cattle; establishment of wildlife food and cover; and public outdoor recreation. Boating, fishing, and picnicking is now available in an area heretofore lacking in such free facilities. And all the land is open to the public. Unlike many of the Rocky Mountain states, Texas—comparatively and proportionately—has little Federal land which can offer free outdoor recreation facilities to its expanding population. The Cross Timbers Grasslands provides a partial solution to an ever-increasing need.

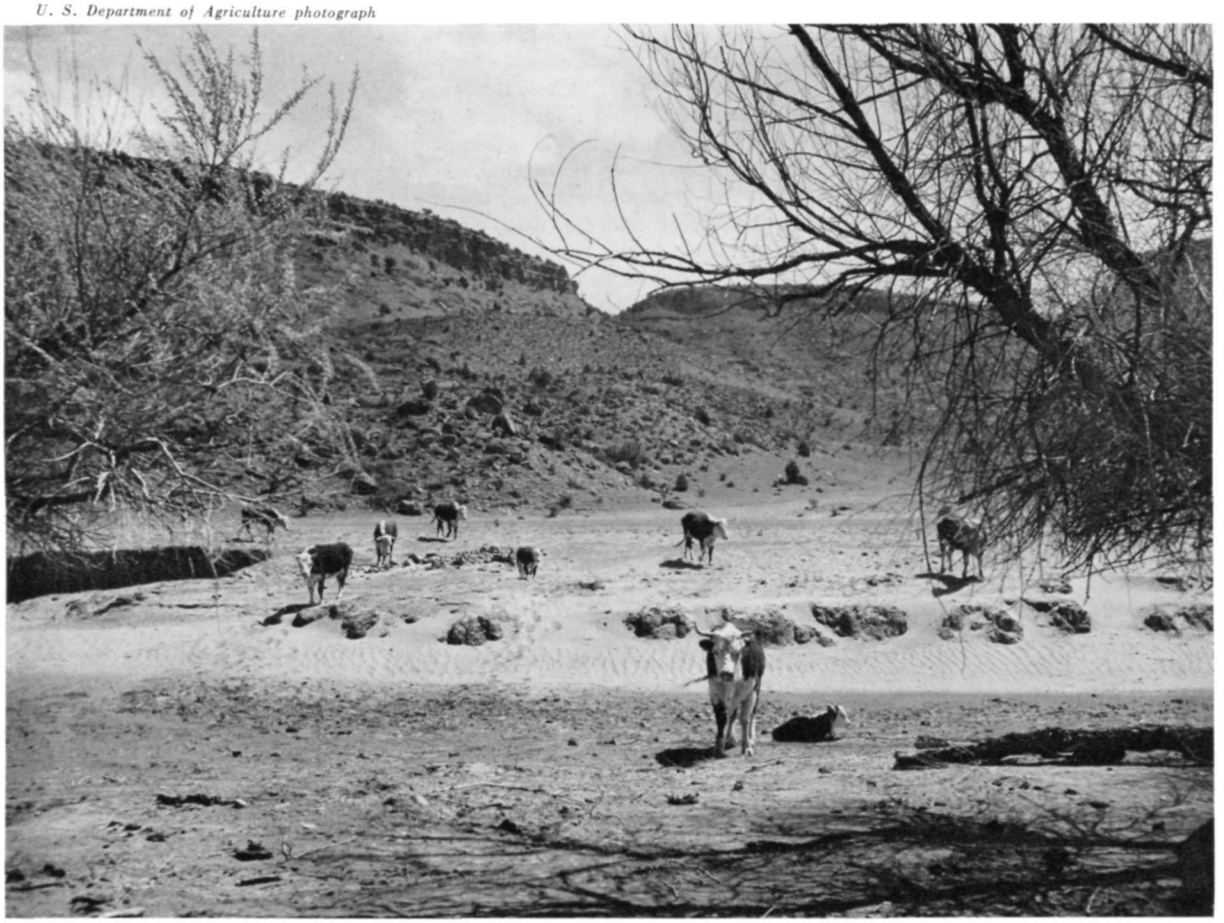
Meeting Recreation Needs

Although the primary reason for governmental purchase of the lands which are now Grasslands was control of land erosion by wind and water, the success of the program suggests that it might be considered in areas other than the High Plains States, although perhaps in a modified version to suit other land-types. In other parts of the country there are many tracts of exhausted and abandoned croplands, as well as agricultural lands which cannot longer compete with the mechanization of the modern big farm.

Perhaps the purchase of some of this nonproductive land would help answer the conservation and recreation needs of an American population which increases alarmingly with the passing of each year. Such tracts, scattered about the Eastern, Southern and Central States—in which there are relatively few of the great national forests and national parks and monuments—might help to relieve the pressure on those that *do* exist; they would also continue the successful work that has already been done by the Federal Government in the Grasslands of the High Plains country, where only a few decades ago there was little but a sea of barren land—a monument to the misuse of the plow and the power of wind and running water. ■

Hungry cattle search in vain for forage on this overgrazed range in Union County, New Mexico. A creek which once ran through the area has dried up, and nearby trees are slowly dying. Proper management of such misused areas has helped to provide at least a part of the nation with vital grasslands and outdoor recreation opportunities.

U. S. Department of Agriculture photograph



News and Commentary

Interior Tightens Pesticide Controls

Secretary of the Interior Stewart L. Udall has recently taken an action in regard to Departmental use of pesticides and herbicides that is bound to gratify the conservation world as well as a good many members of the scientific fraternity. In early September the Secretary promulgated a set of rules, developed by Frank P. Briggs, Assistant Secretary for Fish and Wildlife, which will govern Interior's land administration agencies in their use of pesticides and herbicides on the some half-billion acres of public lands under their jurisdiction.

A notable feature of the Secretary's order was its insistence that first priority in pest control be given non-chemical methods. Where chemicals are to be used, however, a determination of anticipated results and possible harmful effects must be made, and only chemicals registered for use on a particular pest will be employed. Entirely proscribed on Interior lands will be the chemicals DDT, chlordane, dieldrin and endrin.

In general, the Secretary's new guidelines for pest control will require use of the most selective chemicals available, minimum dosages with the safest carriers, and application under conditions that leave no reasonable doubt that harmful effects will be minimized. Under the order the Geological Survey will maintain surveillance of pesticide effects on the water resources of Department lands, while the Bureau of Sports Fisheries and Wildlife will appraise effects on fish and wildlife and their food organisms. Department agency pest-control programs will be reviewed by the Geological Survey and the two agencies constituting the Fish and Wildlife Service (Sports Fisheries and Wildlife, and Commercial Fisheries) and will go from there to the interdepartmental Federal Committee on Pest Control for further review.

Looking to the Future

As fifty-five million infants are brought into the world daily, the already complicated population problem grows to menacing proportions. How will these fifty-five million be fed, since two-thirds of the world's human population is already undernourished? Who will house, clothe, educate, and train the fifty-five million, since economic and social progress is alarmingly slow in comparison with world population increases? Who will welcome these fifty-five million and provide them with a healthy emotional atmosphere, since a recent survey among low-income, low-education parents revealed that fifty-four percent of their children were unwanted? And, in the United States, who will eventually give jobs to the four million born annually, since the demand for workers is remaining constant or even diminishing in some fields?

These great social questions have been recognized by responsible leaders in many of the underdeveloped nations—leaders who seek to stem population growth so that lagging social and economic developments can catch up with the tide of newly-arrived inhabitants. Some of these underdeveloped nations, like Pakistan, have adopted official policies regarding population control, and are conducting national population programs. The reason for such a policy in Pakistan, according to President Ayub Khan, is that "If we continue to increase at this rate, it will lead to a living standard little better than [that of] animals."

The various problems arising from unchecked population growth in the United States and elsewhere have been outlined and briefly discussed in a recent booklet entitled "What Are The Facts About The Population Crisis?" published by the National Health Education Committee, Inc. The Committee is a private research group located at 135 East 42 Street, New York 17, New York. It lists the following as some of the reasons why it calls the never-ending population boom a "crisis":

1. Food production is consistently falling short of population growth in most of the world.

2. In the United States, population growth will burden rather than accelerate the economy, since "Industrial productivity and the standard of living rather than the number of people determine purchasing power."

3. Our rapidly expanding population will mean substantially increased tax rates to provide basic services for the masses, as well as bigger and bigger government. In this nation, educational facilities, highway construction, urban renewal, and housing and health services are already lagging far behind population growth.

To meet the challenge the Committee calls for research on methods of fertility control; informing the public about the dangers of unchecked reproduction; developing a sense of responsibility in youngsters concerning marriage and parenthood; and making existing knowledge on birth control available to those who want it at low or no cost. According to the Committee such measures to slow down the rate of human births are necessary because "What we do, or fail to do, about the population crisis can make the difference between a good life—and famine, disease, and grinding poverty for billions now alive and soon to be born."

The Committee is not, however, the only organization concerned with population growth. Dr. Raymond Ewell, Vice President for Research of the State University of New York at Buffalo, commented recently at a meeting of the American Chemical Society that famine will strike many parts of the world within the next decade as expanding population outstrips food production. Another scientist, Lord Brain, who is incoming President of the British Association for the Advancement of Science, suggested recently that the United Nations sponsor an international body to collect information on population and give each nation the necessary data on which to base its own population policy. The Population Reference Bureau, Inc., with headquarters

Fire Island Seashore Is Approved By Congress

Only a few days after passage of legislation creating an Ozark National Scenic Riverways in Missouri (story and map, page 15), Congress authorized the Fire Island National Seashore, to include the greater part of Fire Island and its adjacent marshlands and waters off the south coast of New York's Long Island. Excluded from the seashore were a number of established communities, the Robert Moses State Park at the western tip of the island, and the Smith Point County Park at its eastern extremity. Provision was made for acquisition of beaches and waters adjacent to the several settled communities, along with such private land as may be needed for access. The sum of $16 millions was appropriated for lands and interests in lands within the new seashore.

A map of the newly authorized area will appear in the November issue of this Magazine.

in Washington, D. C., has long advocated population control in the United States. The Hugh Moore Fund, at 51 East 42 Street, New York, contends that the war on poverty cannot be successful unless it includes a war on overpopulation, and recommends research on the problem as well as a Presidential Commission on Population to "inform . . . the American people of the nature of population problems with respect to the implications on all aspects of American life."

Many conservationists, too, along with far-thinking lay individuals, feel that there is little hope for the preservation of a natural and pleasing environment in a world pulsing with underfed and undereducated individuals. There will be little opportunity for solitude, for the esthetic and cultural experiences of the outdoors, and for the preservation of wilderness and wildlife if natural resources must all be sacrificed to basic human needs in the crushing atmosphere of an overcrowded society.

Advisory Board Appointments

Two appointments to fill vacancies on the Advisory Board on National Parks, Historic Sites, Buildings and Monuments have been made public by the Secretary of the Interior. The appointees are Dr. Joe B. Frantz, chairman of the Department of History at the University of Texas, Austin; and Dr. Emil W. Haury, head of the Department of Anthropology, University of Arizona, and director of the Arizona State Museum. The two vacancies occurred on expiration of the terms of Harold P. Fabian, of Salt Lake City, Utah, and Dr. Edward B. Danson, Jr., of Flagstaff, Arizona.

A Welcome Addition

In the July issue we reported that the Fish and Wildlife Service had temporarily closed that part of the Loxahatchee Wildlife Refuge in southern Florida used by the extremely rare Everglade Kite as nesting terrain. Fishermen who ordinarily use the area were fully cooperative, the Service has reported, and two young kites were sucessfully reared by a nesting pair. (Only one bird was raised in 1963). It is believed that there are less than 20 of the species in existence, including the two young of the 1964 season.

Question of Public Interest

The June and August issues of *National Parks Magazine* reported the intentions of Consolidated Edison Company to build a huge power plant on the west side of New York's Hudson River, near Cornwall. Conservationists, led by the Scenic Hudson Preservation Conference, have protested the proposed plant, declaring that the project would cut an ugly gash up the side of Storm King Mountain, and deface one of the few remaining places of natural beauty to which New Yorkers can flee from the noise and fumes of city life. On July 31 the legal and economic aspects of the case were tentatively decided when a Fed-

(continued on following page)

Ozark National Scenic Riverways in Southern Missouri Is Authorized

Map by Federal Graphics

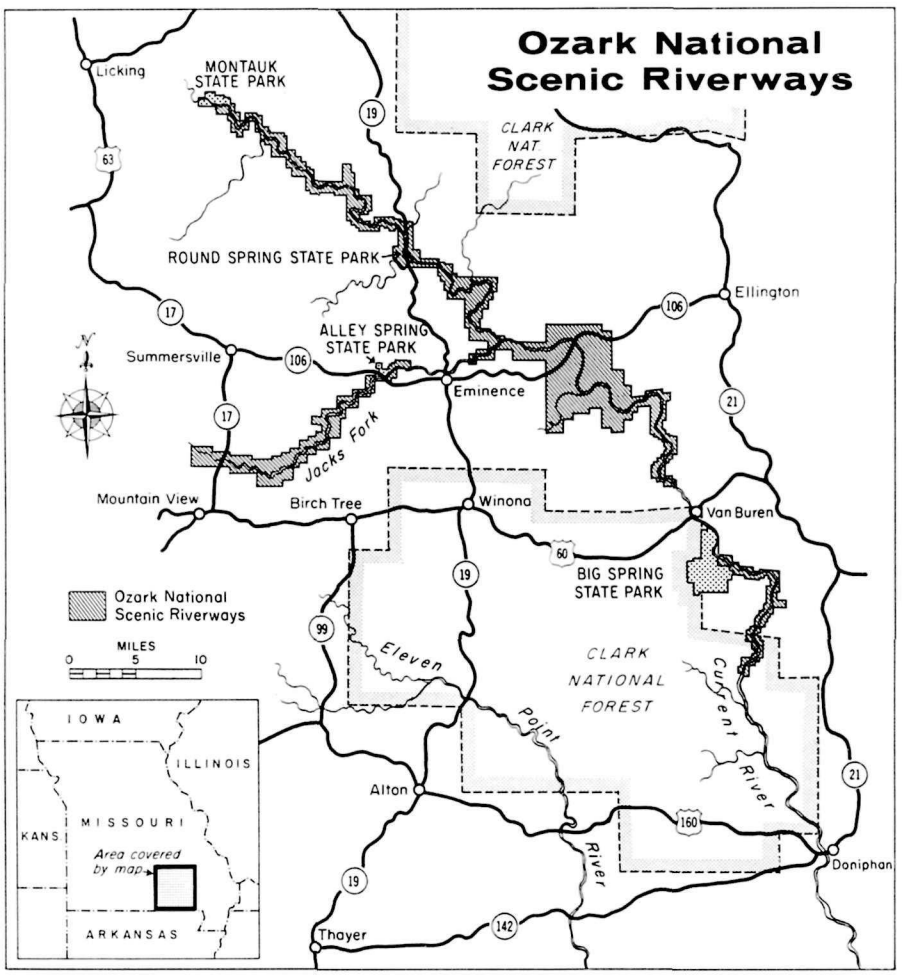
An Ozark National Scenic Riverways on southern Missouri's Current and Jacks Fork Rivers was authorized by Congress during late August to preserve parts of the two rivers as free-flowing streams.

The Riverways, which will encompass not more than 65,000 acres (not including four State parks which may be acquired by donation) will stretch along the banks of the two rivers for some 140 miles.

As originally seen by the National Park Service the area would have included about 113,000 acres on the Current, Jacks Fork and Eleven Point Rivers, all of which are tributary to the Black River farther south. The Eleven Point sector was eliminated during the area's legislative career, which has spanned three Congresses.

Of special interest in the new Riverways are the great springs—Big Spring, in Big Spring State Park, for example, produces a quarter-billion gallons of water a day, on average—many caves and "sinks," or collapsed limestone cave areas; a flora of at least 1500 reported species; and a rich assortment of fishes, birds and mammals, among the latter of which is the rare red wolf.

As passed by Congress, the bill authorizing the Ozark Riverways allows the Interior Secretary wide discretion in methods of acquisition, which may take the form of scenic easement, fee simple title, or title subject to life estate.



eral Power Commission examiner ruled that the project would be "greatly in the public interest." The Conference then announced that it would file an exception to the ruling, and requested a review of the decision by the full Commission.

Many conservationists believe, with Scenic Hudson, that legal and economic aspects are not all that should be considered here. Esthetic and cultural values should weigh more heavily than they seem to have so far in the controversy, they feel, though they are ready to admit that these values cannot be tagged with a price.

New Wildlife Refuges

Two new National wildlife refuges have been acquired by Interior's Fish and Wildlife Service in recent weeks—Conboy Lake, in south-central Washington, an area of 10,246 acres; and the Cibola Refuge on the lower Colorado River in California and Arizona, with an initial 9400 acres. Additions have also been made to the following refuges previously existing: Montezuma Refuge, in New York, 19 acres; Carolina Sandhills Refuge in South Carolina, 580 acres; Okefenokee Refuge in Georgia, 855 acres; and Brigantine Refuge in New Jersey, 73 acres.

Farewell to Foaming Detergents

By December, 1965, detergent manufacturers in the United States will be able to claim that their products not only clean dishes and clothes, but that they also help to keep the nation's waterways free of damaging foam. In response to the contentions of health authorities, conservationists, and worried consumers that detergents are major contributors to water pollution, the Soap and Detergent Association recently agreed to change from "hard" or non-degradable detergents to "soft" or bio-degradable detergents. The soft detergents break down readily after use and do not pollute streams and rivers.

The changeover was proposed when soap manufacturers became alarmed at the possibility of Congressional action to impose a ban on non-degradable detergents. The manufacturers offered to change their products voluntarily at the end of 1965, claiming that the delay was necessary to insure safety and economic practicability of the new soaps. One consumer expert noted, however, that the real reason for the delay was to prevent an increase in the prices of raw materials.

Non-degradable detergents have been cited as the cause of foaming in household sewage systems and waterways, and foaming of household drinking water in some towns. Maryland, Wisconsin, and Dade County, Florida, have already passed regulations of their own controlling the use of hard detergents after some severe water-supply pollution experiences.

There has evidently been a minimum of difficulty in the development of soft detergents, and they are expected to sell at prices similar to the old, foam-producing type. Consumers report that they are pleased with the new products, and conservationists are pleased with this important breakthrough in the fight against pollution of the nation's waterways and lakes.

Book Reviews

ROADLESS AREA. By Paul Brooks. Alfred A. Knopf, Inc., New York City. 1964. 251 pages, with appendices. Illustrations by the author. $4.95.

In recent years the word "wilderness" has been whirled about with such abandon that sometimes one wonders how many armchair enthusiasts really know what they are talking about when they employ the term. What *is* wilderness? What does it mean to man, fettered as he is by his own technological cleverness? For instance, there is a curious delusion on the part of the millions of Americans who happily inhabit the national or state park campgrounds during the holiday season, that they have been enjoying a wilderness experience. What they have done is of course altogether healthy and admirable, and if they have been fortunate in their interpreters, they have learned much about the earth-mother and her creatures. But, alas, they have not learned much about themselves, for they have really moved from a suburb of front-lawns to one of adjacent tent-pegs or trailer-spaces. They have been on the threshold of wilderness, perhaps—but the door remained closed.

In this book by Paul Brooks, written with a felicity that reminds one of Robert Louis Stevenson, and further made enjoyable by pen-and-ink sketches by the same hand, the essence of the roadless area comes clearly through. For there is no possible wilderness where the wheeled vehicle enters, where the motorboat can scream, or where low-flying planes can din. The journey into wilderness may be astride a horse, afoot with a pack on the back, or sometimes by canoe, as in the glorious Quetico-Superior country. Many such roadless areas Paul Brooks and his wife have entered with respect and ever-increasing joy, and whether the place was Alaska or Lower California or the Olympic Peninsula, they found in these challenges something that life offers nowhere else. The reader finds that even when, as in the case of a canoe-trip on an English canal, these happy adventurers were not actually in roadless areas, they yet carried with them the spirit of wilderness.

It is not easy to put into words precisely where the importance of wilderness lies. The wilderness experience is not a stunt; it is not the "getting away from it all," it is not a triumph of aloneness. It may be something of all these, but Brooks sagely suggests that "appreciation of wild nature can be a creative act, like appreciation of painting or literature or music." A really profound bit of philosophy!

CUENTOS DEL CASTILLO DEL MORRO. By Julio Marrero-Nuñez. Ediciones Rumbos, Barcelona, Spain. 1963. 244 pages, with illustrations. $3.00.

This collection of short stories, written in Spanish by the talented superintendent of San Juan National Historic Site, one of the areas of the National Park Service, reveals in the happiest possible way the life-spirit of the fort that was Spain in the New World—by seeing it through the eyes of the natives and the visitors who come on holiday. The language is Spanish, but here, in these delicately shaded chapters, speaks the just pride that the Island has a culture of its own. That the volume has recently won a prize from the Institute of Puertorrican Culture of the University of Puerto Rico underscores this fact.

Says a little quotation in the front pages of the book: "San Juan has three things that Madrid does not possess; El Morro, San Cristóbal, and the sight of the ships coming in from the sea." Yes, and one other thing: a capital interpreter in the person of Señor Marrero-Nuñez. —*F.T.*

EXPLORING THE OLYMPIC PENINSULA. By Ruth Kirk. University of Washington Press, Seattle, Washington 98105. 1964. 118 pages in paper cover with 65 photographs and 6 maps. $1.95.

One completes a reading of this excellent volume with the impression that the beautiful Olympic Peninsula of Washington State is home to the author, and that she, as all genuine homekeepers, knows and loves the dwelling and all its furniture. One must concede also that Ruth Kirk, experienced and capable writer on nature and the out-of-doors, has done a remarkably thorough job of *Exploring;* so thorough, in fact, that complete digestion of the book's contents would probably endow the non-Olympian with more real knowledge of the Peninsula and its human and natural history than is ever acquired by most of its natives.

The book, beautifully illustrated, is not aimed primarily at the "tourist," but rather at the investigator and the explorer, although it conceivably could make investigators and explorers of a few select tourists. —*P.M.T.*

FOLK SONGS OF THE COLORADO RIVER. By Katie Lee. Folkways Records and Service Corp., 165 West 46 St., New York. Thirteen songs on a long-playing, nonbreakable Microgroove 33⅓ RPM. $5.95.

Katie Lee is a former Hollywood singer with an intimate knowledge of the swirling rapids, tinkling waterfalls, and gem-colored canyons of the Colorado River. For years she has boated and camped in the hidden canyons of the Colorado, singing in a clear, pleasing voice about its natural beauty and her hardy friends, the Canyoneers, who explore its dangerous rapids and towering walls.

Katie and the other Canyoneers are heirs to the traditions of the Colorado, passed down to them in song and poetry by generations of adventuresome river-runners. It is of these past generations, of present Canyoneers, and especially of the beautiful Colorado and how developers have robbed it of some of its charm that Katie sings. Her songs tell about the "Mighty river, full of wonder," about "The Ghost of Hoskinini," the Navajo Chief who guarded the river canyons against gold-hungry white men, and about "a big cement creation"—Glen Canyon dam—that on January 21, 1963 began to bury one of the river's most exquisite examples of natural artistry.

The record is accompanied by an eight-page booklet containing the songs and several poems, plus an explanation of what is happening to the Colorado and who is fighting to save it from destruction. The record is a meaningful experience in fine folk-singing, and accomplishes the dual purpose of entertaining while registering a musical protest against destruction on the Colorado. —*M.A.R.*

THE CONSERVATION DOCKET

By the time the October CONSERVATION DOCKET is in print it is likely that the 88th Congress will have adjourned. All proposed legislation which has not been approved by both houses will die with the old Congress, no matter what its stage of progress in the legislative mill may have been. Thus, it might be appropriate in this issue of the Magazine to briefly review some of the more important conservation bills which have been enacted into law in the 88th Congress.

• Two new park system areas—a national riverways and a national seashore—were authorized late in the second session; these are noticed in the newspages of this issue. A third area was authorized by Congress too late to receive notice in the newspages: the Canyonlands National Park in southern Utah.

The Ozark National Scenic Riverways, which is generally described on page 16, was essentially a compromise between S. 16 (Symington and Long) and H. R. 1803 (Ichord). The Senate bill called for a 78,200-acre Ozark National Rivers, while the House version reduced the area to 65,000 acres (plus State or privately-donated lands) and changed the name to national scenic riverways; the House version prevailed, and became Public Law 88-492. The Interior Secretary is allowed considerable latitude in securing scenic easements along the Jacks Fork and Current Rivers, either by donation or purchase; the enabling legislation stated that "the Secretary shall permit hunting" in the riverways in accordance with State and Federal game laws, although he may designate "zones where, and establish periods when, no hunting shall be permitted" for public safety reasons. A seven-man commission, with a ten-year life, was authorized to advise with the Interior Secretary in matters affecting the new riverways; four members from the involved Missouri counties, two appointed by the Governor of Missouri, and a chairman to be appointed by the Secretary.

• The passage of H. R. 7107 (similar to S. 1365) in mid-August added another national seashore—Fire Island—to the park system. Noteworthy in the legislation creating the 4300-acre seashore off the south shore of Long Island in New York was language stating that the Interior Secretary should administer the area "with the primary aim of conserving the natural resources there" with the least possible development. Hunting, however, would be permitted in the manner obtaining in the Ozark Riverways.

• Canyonlands, the new national park, is based primarily on S. 27 (Moss), and will include 257,640 acres of wild terrain about the confluence of the Green and Colorado Rivers in southeastern Utah. Many conservationists feel that this acreage is hardly sufficient to protect all of the natural features which ought to be protected in the region. The original National Park Service study area was 800,000 acres, more or less; the proposal was gradually scaled down over the course of two Congresses, and at one time there was a proposal for a Canyonlands Park of little more than 50,000 acres. The original provisions of S. 27 allowed a very long term for continuance of grazing privileges in the new park (twenty-five years, and in some cases longer). These were reduced in the final version to the present term of a lease (10 years) and one renewal, making the maximum possible term 20 years in the case of a recently-signed lease; the average term would be considerably less. No provision is made for continuation of mining and mineral-land leasing within the park, and no provision is made for public hunting. Canyonlands National Park will be discussed further in the November issue of the Magazine.

• Early September of 1964 brought a presidential signature on Public Law 88-578, establishing a Land and Water Conservation Fund, legislation for which had progressed through the 88th Congress as H. R. 3846 (Aspinall). Most conservationists have viewed establishment of such a fund as most important in providing (a) impetus to State efforts toward expanded park and recreational area programs (b) a program of great benefit to the National Park and Forest Services in their efforts to reduce inholdings in parks and forests, and (c) for acquisition of special areas for threatened species of American wildlife. The fund will derive its revenues from admission and user fees at Federal parks, forests, wildlife refuges, land management areas, and other Federal property; the net proceeds from sale of surplus Federal real property; and the existing tax on motorboat fuels. The public law (P. L. 88-578) authorizes advance appropriations by the U. S. Treasury to the fund, to be repaid without interest out of receipts after ten years of operations. Sixty percent of annual appropriations from the fund will be available to the States as grants-in-aid; such grants must be matched 50-50 by the States. Forty percent will go to Federal agencies for land purchase; but proposed land acquisitions must first be approved by Congress.

• Very likely there are few readers of the CONSERVATION DOCKET who are not now aware of the passage of Public Law 88-577, the Wilderness Bill, and its signature by the President September 3, 1964. Prime purpose of the law is to "assure that an increasing population, accompanied by expanding settlement and growing mechanism, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation in their natural condition . . ." The system will be comprised of Federally owned areas in the national forests and parks specifically designated by Congress as wilderness and which are without permanent improvements or human habitation. National forest areas presently defined as wilderness, wild or canoe will be included immediately in the system. Within 10 years the Secretary of Agriculture will review all remaining primitive areas for suitability as wilderness areas, and the Secretary of the Interior will review portions of the national parks and wildlife refuges for the same purpose; they will make their recommendations to the President, and the President will make his recommendations to Congress; no recommendation in any case would be effective without an act of Congress.

• A bill (S. 2082) to transfer more than half of the so-called "hole in the doughnut" in Everglades National Park from the Farmers Home Administration to the Park Service became law during the closing phases of the 88th Congress. Total amount of land involved in the transfer of jurisdiction is about 4200 acres; and, as has been noted in several previous issues of this Magazine, many conservationists have not been pleased over the interdepartmental arrangement by which the Park Service has proposed to transfer some 700 acres of its new landholding to the Army for a Nike missile site.

• In a move aimed at strengthening the hand of the Department of Agriculture in dealing with the problem of pesticide registration "under protest," Congress passed Public Law 88-305 (based on S. 1605 and H. R. 9739) eliminating a practice which the Department had previously been unable to prevent. It can now refuse a pesticide manufacturer permission to market until a product meets labeling and public safety standards.

• Conservationists, led by the Scenic Hudson Preservation Conference, have lost the first round of a fight to prevent serious desecration of part of the Hudson River Highlands in New York. A hydroelectric power project, proposed by The Consolidated Edison Company of New York, Inc., calls for blasting out the north front of Storm King Mountain near Cornwall for a generating plant which would be powered by waters of a storage reservoir high above in the scenic Highlands. The company has applied to the Federal Power Commission for license to construct the facilities. In a recent initial decision, an FPC trial examiner ruled in favor of the power company. The Scenic Hudson Preservation Conference has filed an exception to the decision and has requested a ruling by the full commission.

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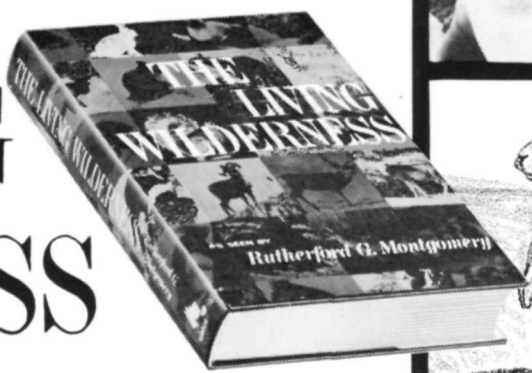

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Department of Interior: Grand Canyon National Park

The Kaibab squirrel (above) and the Abert squirrel of the American Southwest are believed to be an evolutionary pair, isolated by the great canyon of the Colorado River.

THE NATIONAL PARKS ASSOCIATION strongly opposes game management practices which conceivably might lead to extermination of a native species of animal. For example, when the Arizona Game and Fish Commission recently announced a 1964 open season on the Kaibab squirrel in conjunction with a turkey-hunt, this Association, with other conservation organizations and many individuals, protested the action as most unwise. The Kaibab squirrel occupies a small pine-forest terrain on the north side of Arizona's Grand Canyon; it is of great scientific and esthetic interest, and is currently listed by the U. S. Fish and Wildlife Service as endangered. The scheduled hunt was cancelled for this year, at least.

YOU CAN ASSIST your Association in protective work of this kind by helping to secure new members; by raising your membership class; or by contributing to the general funds of the Association over and above regular membership. Contributions, and membership dues in excess of five dollars are deductible for federal taxable income.

National Parks Association

1300 New Hampshire Avenue, N.W. **Washington, D.C. 20036**